

# SMART PANTILT CONTROLLER

## SET-UP GUIDE

### KSC-3X

**KONOVA**

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KONOVA SLIDER, it is being used all over the world

# WORLD BEST

Our customers made a couple of videos using our sliders and as you can see how they managed to get dramatic shots.

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Konova, we directly study and develop,  
will continue to create a new global standard.

Our company, Konova, was established in Korea in 2001.

These days, our company becomes a largest company that develops and sells H-DSLR equipments for both photo and video and studio related supplies in Korea. Through the product development and production of high quality based on the know-how and technology of past 10 years, Konova is introducing our advanced photo/video equipment and other accessories to photo/videographers, and support them with products what they want and expect fast and easily.

In response of this, our Konova Slider K Series and Skater Dolly are invented in 2010 and export to 60 countries, and well received by many photo/videographers all over the world. Recently released Konova Slider Crank Handle Kit and Motorized Kit make as reality with new sense of moving to photo/videographers so far was only imagine.

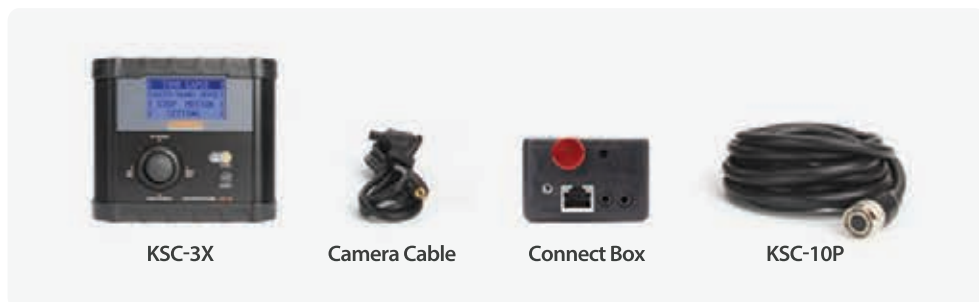
This 2013, we, Konova, want to introduce newly released Pan/Tilt Controller and Smart Head, and Slider Zip, which is produced at the end of many years of research and development, to give you a new standard of new video equipment with Konova's own spatiality and technology once more.



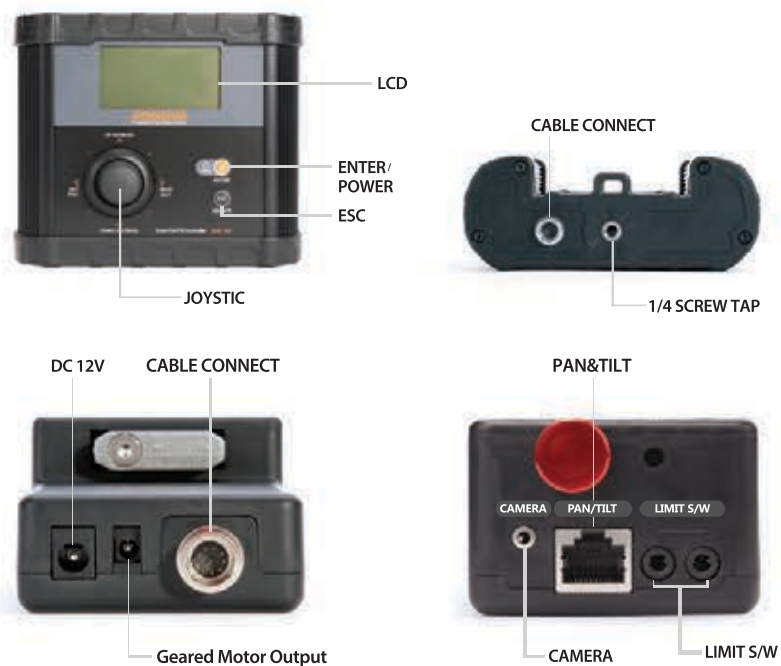
# Examine the controller

## Package Contents

KSC-3X, Camera Cable, Connect Box, KSC-10P



## Name of Parts



## Geared Motor

51:1 ~ 721:1 We have motors with various gear ratio, you can choose a speed of motor you want.



⚠ For high-speed motor, there is a risk of blurring occurs slow shooting.



⚠ It is tested in the situation below; there is a different case by assembly conditions and variations in motor performance.

# Set Up Guide



Disconnect the crank handle by using 2mm wrench.



Set up the pulley at where crank handle was located like a picture above. Install the pulley cover that is included with the pulley you have installed.



Install a motor mount like a picture above, and secure it using the right side lever.



Install a motor mount on motor, and secure motor belt to the pulley.



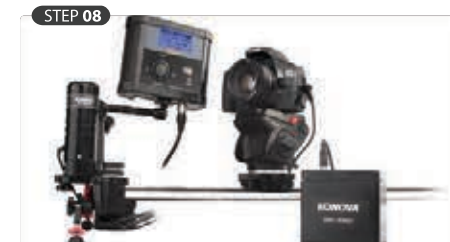
After mounting in tight motor belt, attach the pulley cover.



Install the Connect Box like a picture above.



Connect cables to the Connect Box like a picture above.



Connect the Connect Box with the camera to complete the install.



# Time Lapse

## Interval Move

Move certain intervals Interval shooting is possible.

Interval Time	Camera Setting	Shot Wait	Interval Time	Camera Setting	Shot Wait
MOVE	대기	포커스 타임	촬영	SW	
MOVE	대기	포커스 타임	촬영	SW	...

Time (Interval Time) is a waiting time from the end of previous shooting to next shooting, and Shot Wait (SW) is a waiting time after shooting.

**STEP 01**

[ TIME LAPSE ]

[ LIVE MOTION ]

[ SETTING ]

Operate the lever up and down, select the Time Lapse, and then press the [enter] button.

**STEP 02**

[ INTERVAL MOVE ]

[ CAMERA SET ]

[ PAN MOTOR SET ]

[ TILT MOTOR SET ]

Operate the lever up and down, select the Camera Set, and then press the [enter] button.

**STEP 03**

[ CAMERA SET ]

FocT: 2s 0ms

ExpT: 1 s

Shot Wait : 0s

Operate the lever up and down, and then set the FocT (time to take the focus) by pressing the [Enter] button.

**STEP 04**

[ CAMERA SET ]

FocT: 2s 0ms

ExpT: 1 s

Shot Wait : 0s

Operate the lever up and down, and then set the Expt (Shutter speed) by pressing the [Enter] button.

**STEP 05**

[ CAMERA SET ]

FocT: 2s 0ms

ExpT : 1 s

Shot Wait : 0s

Operate the lever up and down, and then set the Shot Wait (interval time after shooting) by pressing the [Enter] button.

**STEP 06**

[ INTERVAL MOVE ]

[ CAMERA SET ]

[ PAN MOTOR SET ]

[ TILT MOTOR SET ]

Operate the lever up and down, select the Interval Move, and then press the [enter] button.

**STEP 07**

L. LF/RG 1mm/F

T. Frame : 100cut

I. Time : 1s

< S T A R T >

Operate the lever left and right, select the LF (Leftward), RG (Rightward), and then press the [enter] button.

**STEP 08**

L. LF/RG: 1mm/F

T. Frame : 100cut

I. Time : 1s

< S T A R T >

Enter the distance to be moved by operating the lever up and down. After set up, press the [ESC] button.

**STEP 09**

L. LF/RG: 1mm/F

T. Frame : 100cut

I. Time : 1s

< S T A R T >

Press the [ESC] button to determine the number of frames by operating the lever up and down, select the Frame, and shoot by pressing the [Enter] button.

**STEP 10**

L. LF/RG: 1mm/F

T. Frame : 100cut

I. Time :

< S T A R T >

Operate the lever up and down, select I. Time (Interval time), and then press the [enter] button. After that, enter the interval time by operating the lever up and down, and then press the [ESC] button.

**STEP 11**

L. LF/RG: 1mm/F

T. Frame : 100cut

I. Time : 1s

< S T A R T >

Operate the lever up and down, select the Start, and then press the [Enter] button to start Time Lapse shooting.

**STEP 12**

IV : 0 ST : MOVE

CF : 45 TF : 100

CT : 0h 3m 0s

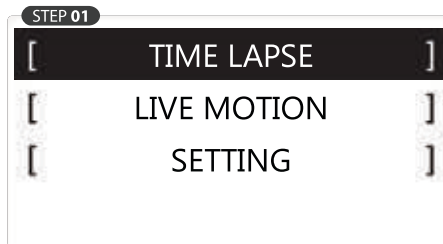
PC : 0 TC : 0

IV: Count the interval time  
CF: Progress Frame, Focus  
CT: progress time  
PC: pan cut  
ST: show the progress (WAIT, SHOT, MOVE)  
TF: total frame  
TC: tilt cut

### 3 Axis Pan&Tilt Setting

Move certain intervals Interval shooting is possible by combining Konova Smart Head.

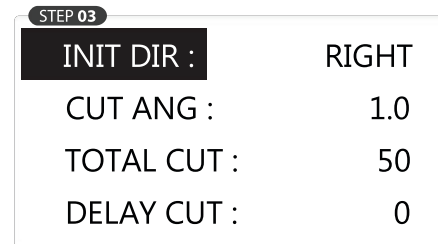
#### PAN MOTOR SET



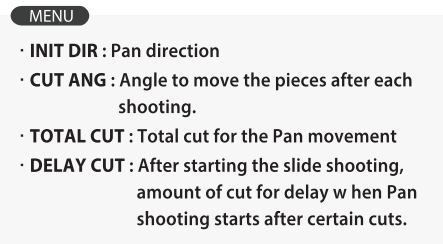
Operate the lever up and down, select the Time Lapse, and then press the [Enter] button.



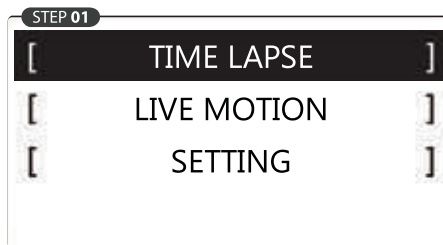
Operate the lever up and down, select the Pan Motor Set, and then press the [Enter] button.



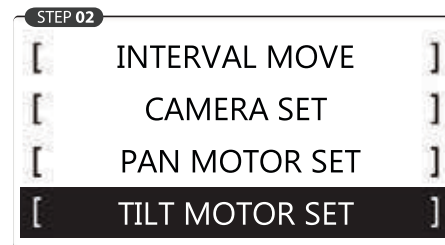
Press the [Enter] button to set up Init Dir (Pan Direction) by operating the lever up and down. By pressing [ESC] button to exit the screen. You can set up the CUT ANG, TOTAL CUT, and DELAY CUT in the same way.



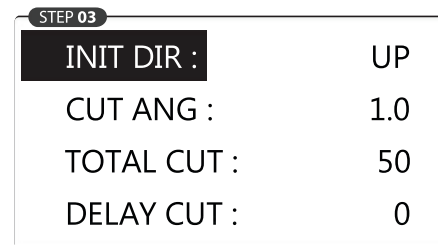
#### TILT MOTOR SET



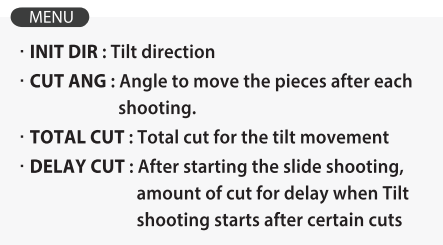
Operate the lever up and down, select the Time Lapse, and then press the [Enter] button.



Operate the lever up and down, select the Tilt Motor Set, and then press the [Enter] button.



Press the [Enter] button to set up Init Dir (Tilt Direction) by operating the lever up and down. By pressing [ESC] button to exit the screen. You can set up the CUT ANG, TOTAL CUT, and DELAY CUT in the same way.

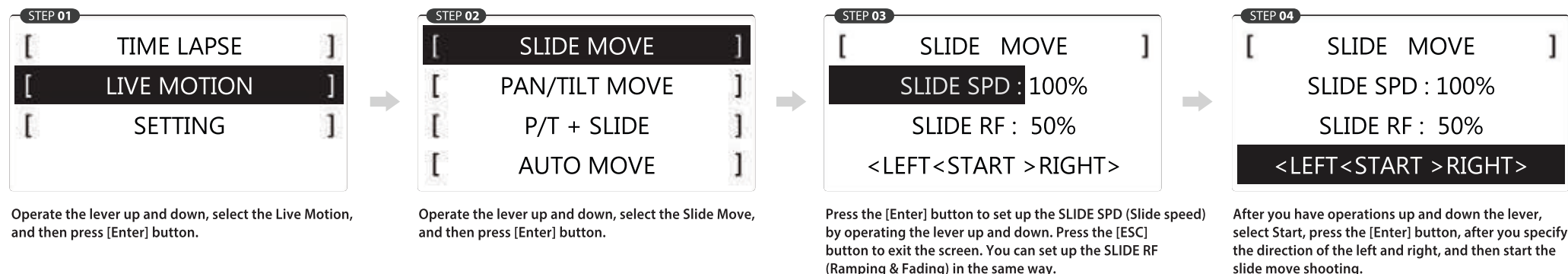




# Live Motion

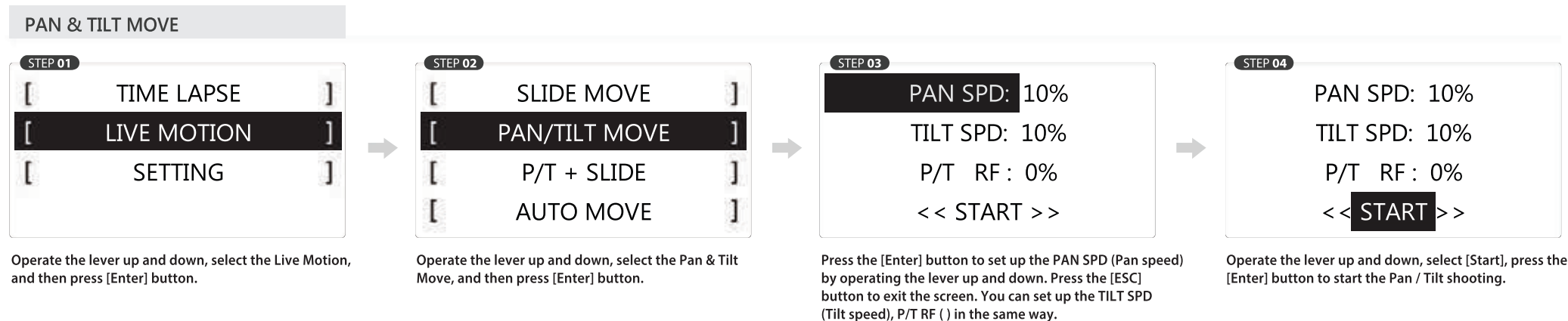
## Slide Move

Moving at a constant speed and shooting Slide move is possible.

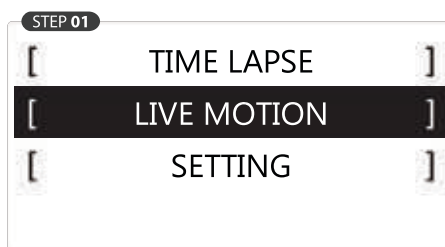


## 3 Axis Pan & Tilt Move

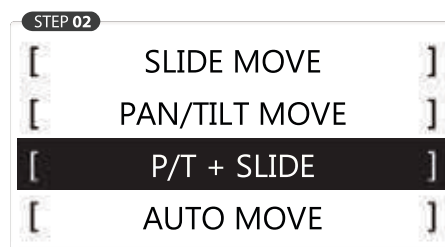
Pan & Tilt, Pan & Tilt + Slide, Auto move are possible.



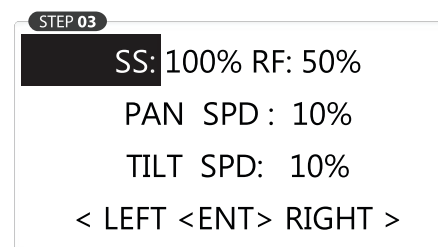
## PAN / TILT + SLIDE



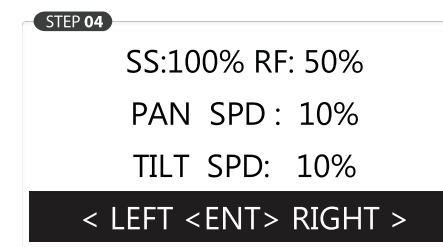
Operate the lever up and down, select the Live Motion, and then press [Enter] button.



Operate the lever up and down, select the P/T + SLIDE, and then press [Enter] button.

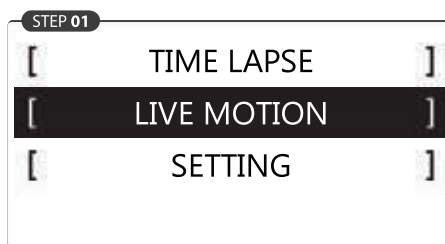


Press the [Enter] button to set up the SS (Slide speed) by operating the lever up and down. Press the [ESC] button to exit the screen. You can set up the RF (Slider Pan/Tilt), PAN SPD (Pan speed), TILT SPD (Tilt speed) in the same way.

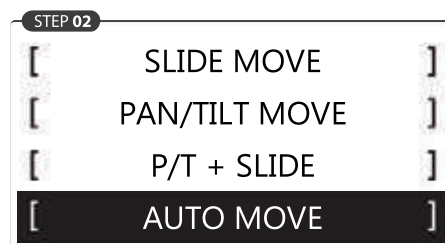


After you have operations up and down the lever, select ENT, press the [Enter] button, after you specify the direction of the left and right, and then start the Pan & Tilt + slide move shooting.

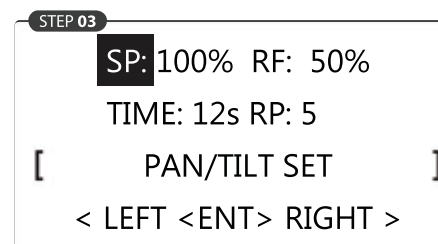
## AUTO MOVE



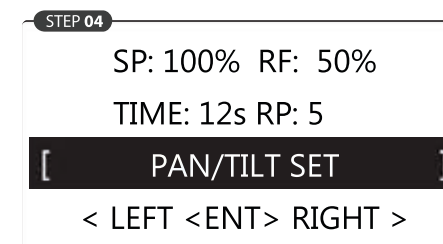
Operate the lever up and down, select the Live Motion, and then press [Enter] button.



Operate the lever up and down, select the AUTO MOVE, and then press [Enter] button.

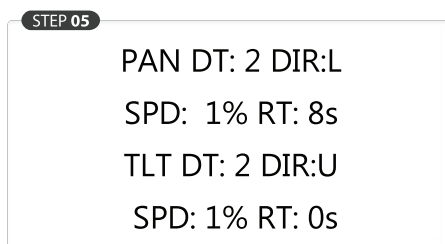


Press the [Enter] button to set up the SP (Slide speed) by operating the lever up and down. Press the [ESC] button to exit the screen. You can set up the RF (Slider Pan/Tilt), TIME (Total time), RP (Repeat number) in the same way.



Operate the lever up and down, select the PAN/TILT SET, and then press [Enter] button.

## PAN/TILT SET



Press the [Enter] button to set up the PAN DT (Pan delay time) by operating the lever up and down. Press the [ESC] button to exit the screen. You can set up the DIR, SPD, RT in the same way.



Select ENT by operating the lever up and down, and press [Enter] button to select the direction of slider. When you select a direction by the lever, Slide, Pan & Tilt will work to repeat the specified settings.

**MENU**

- **Pan DT (Pan delay time)** : Waiting time to operate Pan. Used when the slide starts operating and drives the pan after a certain time' DIR (Direction): direction of PAN
- **SPD (Speed)** : speed of panning
- **RT (Running time)** : time of operating Pan. Total waiting time and Pan drive time is smaller than the total driving time.
- **TILT DT (Tilt delay time)** : waiting time to operate Tilt. Used when the slide starts operating and drives the tilt after a certain time
- **DIR (Direction)** : direction of Tilt.
- **SPD (Speed)** : speed of Tilt
- **RT (running time)** : time of operating Tilt. Total waiting time and Tilt drive time is smaller than the total driving time.



# Configuration

## Setting

Motor, LCD brightness, buzzer, direction setting, and initialization setting are possible.

**STEP 01** Operate the lever up and down, select SETTING, and press [Enter] button.

### MOTOR SET

**STEP 02**

[	MOTOR	]
[	LCD & BUZ SET	]
[	PAN/TILT DIR	]
[	FACTORY INIT	]

Operate the lever up and down, select MOTOR, and press [Enter] button.



**STEP 03**

[	MOTOR OPTION	]
GEAR RATIO : 264		
MOTOR DIR : CCW		
MOTOR CORR : +0		

It is possible to set up more details in shooting when the phenomenon is pressed of weight of equipped camera in vertical, or diagonal shooting.

- Gear Ratio: setting of gear's ratio
- Motor Dir: Motor's default direction of rotation.
- Motor CORR: Motor's Precision Calibration

### PAN/TILT DIR

**STEP 02**

[	MOTOR	]
[	LCD & BUZ SET	]
[	PAN/TILT DIR	]
[	FACTORY INIT	]

Operate the lever up and down, select PAN/TILT DIR, and press [Enter] button.



**STEP 03**

[	PAN/TILT DIR	]
NORMAL		

In the case of when you use the device upside down, you can change the direction of Pan&Tilt in reverse way.

- You can choose normal or reverse.

### LCD&BUZ SET

**STEP 02**

[	MOTOR	]
[	LCD & BUZ SET	]
[	PAN/TILT DIR	]
[	FACTORY INIT	]

Operate the lever up and down, select LCD&BUZ SET, and press [Enter] button.



**STEP 03**

[	LCD&BUZZER SET	]
LCD B.L : 100%		
Buzzer : ON		

You can set up the brightness of LCD and buzzer on and off.

- LCD B.L: Brightness of LCD's setting
- BUZZER: on and off of buzz sound

### FACTORY INIT

**STEP 02**

[	MOTOR	]
[	LCD & BUZ SET	]
[	PAN/TILT DIR	]
[	FACTORY INIT	]

Operate the lever up and down, select FACTORY INIT, and press [Enter] button.



**STEP 03**

REALLY ?		
YES or NO		

Initialization of the factory settings is possible. It will change the setting back to when it first comes out.

# Appendix

## BATTERY PACK

It can supply power to an LED light and our slider motorized kit.



It is compatible with BLS-NP-F750 battery for an extended shooting.



DC voltage transformation switch

It is also compatible with 12 AA batteries instead of the F750 battery.

## USES

The BNG-V12/P12 batteries are for shooting outdoors, while an AC adapter can be used indoors.



BNG-P12

BNG-V12



BLDS-12v 3.5A Adapter

## LIMIT SWITCH

The slider moving can be stopped with the Limit Switch.



The picture above shows how to attach the limit switch to the slider.



When the slider carriage passes and presses the limit switch, the slider movement is stopped.



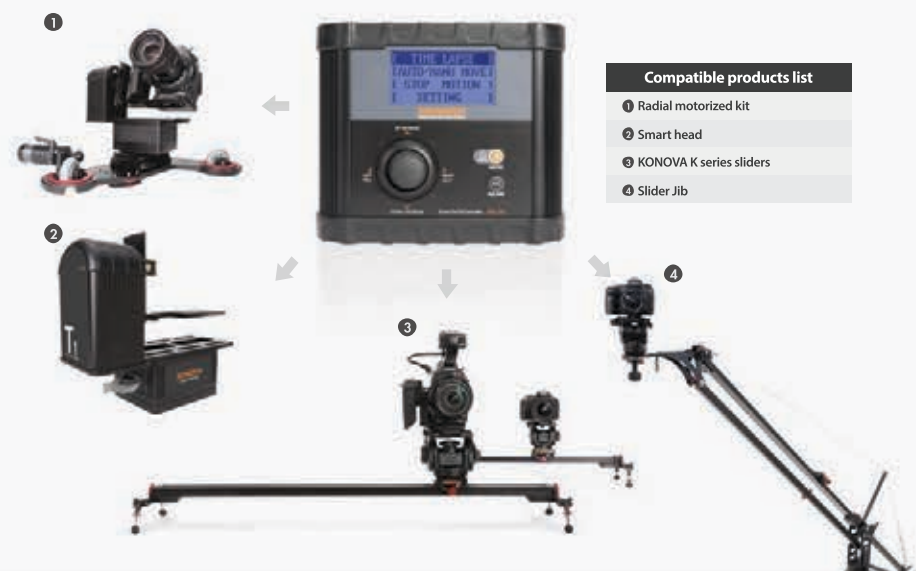
The limit switches can be connected with the Connector.

## CAMERA RELEASE CABLE

There are 6 types of release cables that integrate with different cameras. Please choose one that matches your camera before you make your purchase.

Sigma	SD15 SD14 SD9	RC-01
Canon	60D 650D 600D 100D 550D 500D 450D 350D 300D 1100D Kiss, Kiss-N, Kiss-X2, Kiss-F, Rebel, Rebel XT, Rebel XSi	
Pentax	istD istDs istDs2 istDL istDL2 K-7 K100D K10D K110D K20D K200D K-5 K20D K100D	
Samsung	NX10 GX-1S GX-1L GX-10 NX10 NX11 NX100 etc	RC-02
Canon	1D 1Ds 1D MKII 1Ds MKII 1D MKIIN 1D MKIII 1Ds MKIII 1D MKIV 5D 7D 10D 20D 30D 40D 50D 5D MKII 6D 5D MKIII	
Nikon	D1 D1X D1H D2X D2Xs D2Hs D3 D3X D200 D300 D300s D4 D800 D800E D700 F5 F6 F100	
Fuji	S5pro S3pro	RC-03
Minolta	5D 7D	
Sony	a100 a200 a300 a350 a450 a500 a550 a700 a850 a900 a55 a57 a65 a66 a77 a99 a800	
Nikon	D70s D80	RC-04
Nikon	D90 D5000 D7000 D600 D7100 D3100 D3200 D5200 D510 D5100	
		RC-05
		RC-06

## COMPATIBLE WITH MANY KONOVA PRODUCTS



### Compatible products list

- 1 Radial motorized kit
- 2 Smart head
- 3 KONOVA K series sliders
- 4 Slider Jib